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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,204	09/26/2001	Vinod Nair Gopikuttan Nair	2000 P 16657 US	1833

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Siemens Corporation  
Intellectual Property Department  
186 Wood Avenue South  
Iselin, NJ 08830

EXAMINER

CHAN, EMILY Y

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/964,204

Applicant(s)

NAIR ET AL.

Examiner

emily y chan

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on author letter 9-26-01.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed first circuit node and second circuit node in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: The reference sign 6 is missing in Figs 1 and 2a. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear where the first circuit node and second circuit node is located. It is assumed by the examiner that the first circuit node is connected to the output of the first digital circuit block within the first signal path and the second circuit node is connected to the input of the second digital circuit block within the second signal path.

In claim 3, "a received radio signal" should be "a received radio frequency signal".

In claim 4, the structure connection for the second switch and third switch is unclear. According to the specification and drawing, it is assumed by the examiner that the second switch is provided having a first terminal connected to the first terminal of the first switch and a second terminal connected to input terminal of a first analog circuit block of said first signal path. It is also assumed by the examiner that the third switch is provided having a first terminal connected to the output terminal of a second analog circuit block of said second signal path and a second terminal connected to the second terminal of the first switch.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102 (b) as being anticipated by Ray, Jr. et al ('435).

With respect to claim 1, Ray, Jr. et al ('435) anticipate a communication circuit arrangement (see Fig 1, 24) below with directional signal paths comprising:

a first signal path (14A, 30, B1, 32, 12A) to transmit a first signal into a first direction (see col. 3 lines 59-66), having an input terminal (14A) and an output terminal (12A) and including a first digital circuit block (32) (see col. 3, lines 63-64) to process the first signal.

a second signal path (12B, 40, B2, 50, 14B) to transmit a second signal into a second direction (see col. 4, lines 6-33) having an input terminal (12B) and an output terminal (14B) and including a first digital circuit block (40) (see col. 4, lines 17-18) to process the second signal and

a first switch (B) having a first terminal coupled to a first circuit node (B1) within the first signal path (14A, 30, B1, 32, 12A) and a second terminal coupled to a second circuit node (B2) within the second signal path (12B, 40, B2, 50, 14B) to provide a test signal loop (see col. 5, lines 66-68 and col. 6, lines 1-5) during a test mode of the circuit arrangement.

With respect to claim 2, Ray, Jr. et al ('435) teach that their first signal path (14A, 30, B1, 32, 12A) comprises a first analog circuit block (30) coupled between the first digital circuit block (32) and the output terminal of the first signal path (14A)

Ray, Jr. et al ('435) also teach that their second signal path (12B, 40, B2, 50, 14B) comprises a second analog circuit block (50) coupled between the second digital circuit block (40) and the input terminal of the second signal path (14B).

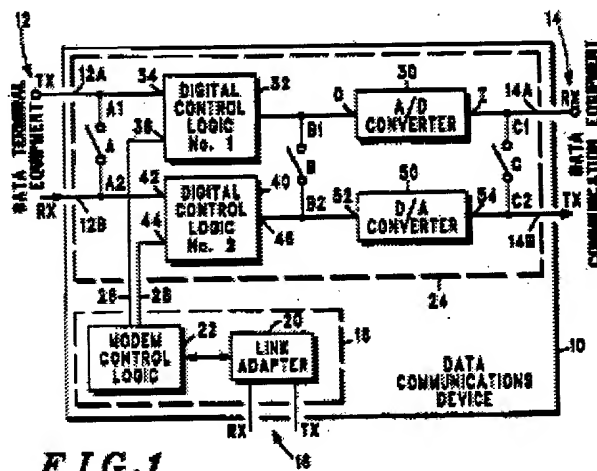


FIG. 1

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ray, Jr. et al ('435) as applied to claim 1 above, and further in view of Aunio et al ('210).

Ray, Jr. et al ('435) teach a first analog circuit block (30) coupled between the first digital circuit block (32) and the output terminal of the first signal path (14A) and a second analog circuit block (50) coupled between the second digital circuit block (40) and the input terminal of the second signal path (14B).

Ray, Jr. et al ('435) does not disclose that their first analog circuit block (30) converts a first signal into a radio frequency signal and their second analog circuit block (50) converts a received a radio frequency signal into a second signal.

Aunio et al ('210) disclose a data transmission arrangement (see Fig. 1) and expressly teach a baseband processing block, a first analog circuit block (112) to convert a first signal into a radio frequency signal (114), and second analog circuit block (104) converts a received a radio frequency signal into a second signal (see col. 2, lines 33-55).

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Aunio et al ('210) for converting the first signal into a radio frequency signal and for converting the received a radio frequency signal into the second signal by the analog circuit blocks in Ray, Jr. et al ('435)' circuitry to improve data transmission in communication system as disclosed by Aunio et al ('210) (see col. 1, line 46).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ray, Jr. et al ('435) as applied to claim 1 above, and further in view of Murata.

Ray, Jr. et al ('435) does not disclose a second switch having a first terminal connected to the first terminal of the first switch (B) and a second terminal connected to the output terminal of the first signal path (14A, 30, B1, 32, 12A) and a third switch having a first terminal connected to the input terminal of the second signal path (12B, 40, B2, 50, 14 B) and a second terminal connected to the second terminal of the first switch (B).

Murata ('589) disclose a radio or communication apparatus (see fig 10) and expressly teach to provide a second switch (Fig 10, 19) within a transmitting signal path and a third switch (Fig 1A, 15) within a receiving signal path.

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the teaching of Murata ('589) for providing the second switch within a transmitting signal path and a third switch within a receiving signal path in Ray, Jr. et al ('435)' circuitry to perform a loopback test without requiring a transmitting and receiving device (tester) specifically used for a loopback test as disclosed by Murata ('589) (see col. 2, line 3-5).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to emily y chan whose telephone number is 7033056123. The examiner can normally be reached on 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, cuneo kammie can be reached on 7033081233. The fax phone numbers for the organization where this application or proceeding is assigned are 7033085841 for regular communications and 7033085841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 7022056123.



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ec  
December 16, 2002



**KAMAND CUNEO**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**